

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant(s) : Katsuura, M. et al.  
Serial No. : 09/806,368 Group Unit : TBA  
Filed : March 28, 2002 Examiner : TBA  
For : BONE MORPHOGENETIC PROTEIN ANTAGONIST BASED  
ON THE MATURE PROTEIN

Statement Under 37 C.F.R. §1.821(f) or §1.825(b)

Commissioner of Patents  
Washington, D.C. 20231

Dear Sir:

I hereby certify that:

- ☐ [ ] The paper Sequence Listing submitted herewith and computer readable Sequence Listing attached hereto are identical (37 C.F.R. §1.821(f)).
- ☒ [X] The substitute paper Sequence Listing and substitute computer readable Sequence Listing submitted herewith are identical. No new matter is included (37 C.F.R. §1.825(b)).

Respectfully submitted,

BIERMAN, MUSERLIAN AND LUCAS, L.L.P.

Date: 6-28-02

By: Charles A. Muserlian  
Charles A. Muserlian  
Reg. No. 19,683

BIERMAN, MUSERLIAN AND LUCAS, L.L.P.  
600 Third Avenue, 28<sup>th</sup> Floor  
New York, NY 10016  
(212) 661-8000  
(212) 661-8002 Telecopier



PCT09

## RAW SEQUENCE LISTING

DATE: 07/29/2002

PATENT APPLICATION: US/09/806,368D

TIME: 08:50:37

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3 <110> APPLICANT: KATSUURA, MIEKO
4   KIMURA, MICHIO
6 <120> TITLE OF INVENTION: BONE MORPHOGENETIC PROTEIN ANTAGONIST BASED ON THE
7   MATURE PROTEIN
9 <130> FILE REFERENCE: 447.001
11 <140> CURRENT APPLICATION NUMBER: US 09/806,368D
C--> 12 <141> CURRENT FILING DATE: 2002-06-28
14 <150> PRIOR APPLICATION NUMBER: PCT/IB99/01621
15 <151> PRIOR FILING DATE: 1999-10-04
17 <150> PRIOR APPLICATION NUMBER: JP 10/288,103
18 <151> PRIOR FILING DATE: 1998-10-09
20 <160> NUMBER OF SEQ ID NOS: 7
22 <170> SOFTWARE: PatentIn version 3.1
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27 <213> ORGANISM: Homo sapiens
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31 <222> LOCATION: (1)..(119)
32 <223> OTHER INFORMATION: Mature MP52
35 <300> PUBLICATION INFORMATION:
36 <302> TITLE: NOVEL PROTEIN AND PROCESS FOR PRODUCING THE SAME
37 <310> PATENT DOC NO: WO9633215
38 <311> PATENT FILING DATE: 1996-04-19
39 <312> PUBLICATION DATE: 1996-10-24
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52 Asp Asp Trp Ile Ile Ala Pro Leu Glu Tyr Glu Ala Phe His Cys Glu
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56 Gly Leu Cys Glu Phe Pro Leu Arg Ser His Leu Glu Pro Thr Asn His
57           50           55           60
60 Ala Val Ile Gln Thr Leu Met Asn Ser Met Asp Pro Glu Ser Thr Pro
61 65           70           75           80
64 Pro Thr Cys Cys Val Pro Thr Arg Leu Ser Pro Ile Ser Ile Leu Phe
65           85           90           95
68 Ile Asp Ser Ala Asn Asn Val Val Tyr Lys Gln Tyr Glu Asp Met Val
69           100          105          110
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Input Set : A:\1962-4066.txt

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88 <302> TITLE: NOVEL OSTEOINDUCTIVE COMPOSITIONS
89 <310> PATENT DOC NO: WO8800205
90 <311> PATENT FILING DATE: 1987-06-30
91 <312> PUBLICATION DATE: 1988-01-14
92 <313> RELEVANT RESIDUES: (1)..(114)
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113 65          70          75          80
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136 <223> OTHER INFORMATION: Mature BMP-4
139 <300> PUBLICATION INFORMATION:
140 <301> AUTHORS: Wozney, JM et al.
141 <302> TITLE: NOVEL REGULATORS OF BONE FORMATION MOLECULAR CLONES
142      AND ACTIVITIES
143 <303> JOURNAL: SCIENCE
144 <304> VOLUME: 242
145 <305> ISSUE: 4885
146 <306> PAGES: 1528-1534
147 <307> DATE: 1988-12-16
148 <308> DATABASE ACCESSION NO: GENBANK/M22490

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Input Set : A:\1962-4066.txt

Output Set: N:\CRF3\07292002\I806368D.raw

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 158 20 25 30  
 161 Trp Ile Val Ala Pro Pro Gly Tyr Gln Ala Phe Tyr Cys His Gly Asp  
 162 35 40 45  
 165 Cys Pro Phe Pro Leu Ala Asp His Leu Asn Ser Thr Asn His Ala Ile  
 166 50 55 60  
 169 Val Gly Thr Leu Val Asn Ser Val Asn Ser Ser Ile Pro Lys Ala Cys  
 170 65 70 75 80  
 173 Cys Val Pro Thr Glu Leu Ser Ala Ile Ser Met Leu Tyr Leu Asp Glu  
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 192 <222> LOCATION: (1)..(139)  
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 196 <300> PUBLICATION INFORMATION:  
 197 <301> AUTHORS: OZKAYNAK, E. et al.  
 198 <302> TITLE: OP-1 cDNA encodes an osteogenic protein in the TGF-beta.  
 199 <303> JOURNAL: EMBO J.  
 200 <304> VOLUME: 9  
 201 <305> ISSUE: 7  
 202 <306> PAGES: 2085-2093  
 203 <307> DATE: 1990-07-01  
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 214 20 25 30  
 217 Asp Gln Arg Gln Ala Cys Lys Lys His Glu Leu Tyr Val Ser Phe Arg  
 218 35 40 45  
 221 Asp Leu Gly Trp Gln Asp Trp Ile Ile Ala Pro Glu Gly Tyr Ala Ala  
 222 50 55 60  
 225 Tyr Tyr Cys Glu Gly Glu Cys Ala Phe Pro Leu Asn Ser Tyr Met Asn  
 226 65 70 75 80  
 229 Ala Thr Asn His Ala Ile Val Gln Thr Leu Val His Phe Ile Asn Pro  
 230 85 90 95

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252 <222> LOCATION: (1)..(119)
253 <223> OTHER INFORMATION: Mature MP52 protein. Note : 30th, 71st, 74th and 111th Met
254     are modified to Met sulfoxide.
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260 1             5             10             15
263 Arg Cys Ser Arg Lys Ala Leu His Val Asn Phe Lys Asp Met Gly Trp
264             20             25             30
267 Asp Asp Trp Ile Ile Ala Pro Leu Glu Tyr Glu Ala Phe His Cys Glu
268             35             40             45
271 Gly Leu Cys Glu Phe Pro Leu Arg Ser His Leu Glu Pro Thr Asn His
272             50             55             60
275 Ala Val Ile Gln Thr Leu Met Asn Ser Met Asp Pro Glu Ser Thr Pro
276 65             70             75             80
279 Pro Thr Cys Cys Val Pro Thr Arg Leu Ser Pro Ile Ser Ile Leu Phe
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300     and/or 111th Met are modified to s-carboxymethyl Met.
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316 Gly Leu Cys Glu Phe Pro Leu Arg Ser His Leu Glu Pro Thr Asn His

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317      50      55      60
320 Ala Val Ile Gln Thr Leu Met Asn Ser Met Asn Pro Glu Ser Thr Pro
321 65      70      75      80
324 Pro Thr Cys Cys Val Pro Thr Arg Leu Ser Pro Ile Ser Ile Leu Phe
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354 Arg Cys Ser Arg Lys Ala Leu His Val Asn Phe Lys Asp Met Gly Trp
355      20      25      30
358 Asp Asp Trp Ile Ile Ala Pro Leu Glu Tyr Glu Ala Phe His Cys Glu
359      35      40      45
362 Gly Leu Cys Glu Phe Pro Leu Arg Ser His Leu Glu Pro Thr Asn His
363      50      55      60
366 Ala Val Ile Gln Thr Leu Met Asn Ser Met Asp Pro Glu Ser Thr Pro
367 65      70      75      80
370 Pro Thr Cys Cys Val Pro Thr Arg Leu Ser Pro Ile Ser Ile Leu Phe
371      85      90      95
374 Ile Asp Ser Ala Asn Asn Val Val Tyr Lys Gln Tyr Glu Asp Met Val
375      100      105      110
378 Val Glu Ser Cys Gly Cys Arg
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VERIFICATION SUMMARY

PATENT APPLICATION: US/09/806,368D

DATE: 07/29/2002

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Input Set : A:\1962-4066.txt

Output Set: N:\CRF3\07292002\I806368D.raw

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09/806,368C

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Directory of A:\

File not found

1,457,664 bytes free

A:\>

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